



Contents lists available at ScienceDirect

Seizure

journal homepage: www.elsevier.com/locate/yseiz

Editorial

Diagnosis of loss of consciousness: When art meets science



Some aspects of neurological care require as much art as science, and this can apply to diagnosis, provision of long-term care, and in tailoring medication to individuals. Transient loss of consciousness (t-LOC) is a common medical complaint, and eliciting the cause of such events is an important and sometimes demanding task.

The difficulties in t-LOC diagnosis are increased by the usually incomplete patient subjective experience and the lack of hard neurological signs, each increasing the importance of a clear eyewitness account (often from a fraught relative).

In the UK, the scale and extent of this common diagnostic challenge has been recognised and partly dealt with by an increasing network of First Fit clinics, made possible by an accompanying increasing number of neurologists in the last 20 years. Application of expertise to the challenge should go some way to reducing the rate of misdiagnosis and targeting treatment to appropriate individuals, hopefully reducing the historical burden of misdiagnosis in our epilepsy clinics in years to come.

Previous attempts to provide objective rating scales to allocate some certainty to individual episodes have helped provide some comfort to hard-pressed clinicians, but there remains no substitute for a targeted and skilled history teased out by an experienced clinician. Arithmetical scoring systems¹ are best at binary decision-making, but picking out one of three or more choices would require either multiple diagnostic tools or a multidimensional tool. Additionally, the variety of clinical manifestations by epilepsy may require an inordinate complexity of questions to keep the scoring sensitive.

Epilepsy remains a significant burden in many poorer parts of the world,² and the absence of a coherent healthcare system and lack of trained medical staff may require development of non-labour intensive tools to improve diagnostic accuracy. It will not be practical merely to utilise tools developed and used in Western healthcare settings. Cultural and demographic differences will require emphasis in any applied questionnaires. In most UK clinics,

the main task will be to differentiate between syncope and seizure, and this is acknowledged in the previous systems used in previously published scores. The work by³ demonstrates that in some remote populations the most frequent competing diagnosis is non-epileptic attack disorder. Use of the wrong scale will at best provide no help and at worst may be more of a hindrance!

Where there are healthcare deficiencies, aids for non-specialist clinicians may be useful in providing reassurance (to patients and clinicians!) and avoiding unnecessary treatment or investigation. The science underpinning neurological care is important, but in many areas, the need for some artistry in clinical care cannot be denied. Where the latter is not available, careful use of science can, at least partly, fill the vacuum.

Dr Paterson's paper shows how the early development of decision-making aids can begin to inform practice. We should welcome anything that will improve diagnostic accuracy, and should be encouraged by the ingenuity and drive evident in this emergent tool. Further validation and refinement, as well as the ability to tailor to other populations with healthcare needs, will give us even more cause for encouragement.

References

1. Sheldon R, Rose S, Ritchie D, et al. Historical criteria that distinguish syncope from seizures. *J Am Coll Cardiol* 2002;40(1):142–8. [http://dx.doi.org/10.1016/S0735-1097\(02\)01940-X](http://dx.doi.org/10.1016/S0735-1097(02)01940-X).
2. Newton CR, Garcia HH. Epilepsy in poor regions of the world. *Lancet* 2012; 380(September (9848)):1193–201. ISSN: 1474-547X.
3. Patterson V, Pant P, Gautam N, Bhandari A. A Bayesian tool for epilepsy diagnosis in the resource-poor world: development and early validation. *Seizure* 2014; 23:567–9.

J.P. Leach

E-mail address: johnpaul.leach@ggc.scot.nhs.uk (J.P. Leach).DOI of original article: <http://dx.doi.org/10.1016/j.seizure.2014.03.010><http://dx.doi.org/10.1016/j.seizure.2014.05.001>

1059-1311/© 2014 British Epilepsy Association. Published by Elsevier Ltd. All rights reserved.